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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,292	10/25/2001	Fredcrick M. Morgan	C1104.70089US00	1752

23628 7590 09/07/2007  
WOLF GREENFIELD & SACKS, P.C.  
600 ATLANTIC AVENUE  
BOSTON, MA 02210-2206

EXAMINER
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A, MINH D

ART UNIT	PAPER NUMBER
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2821

MAIL DATE	DELIVERY MODE
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09/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/040,292

**Applicant(s)**

MORGAN ET AL.

**Examiner**

Minh D. A

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 12,14,15,17-20,23-25,27-36,38-62,74 and 75 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12,14,15,17-20,23-25,2730, 32-36,38-55, 61-62 and 74 is/are rejected.
- 7) ☒ Claim(s) 31,56-60 and 75 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 12, 14, 27-29, 32 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,774, 584. Although the conflicting claims are not identical, they are not patentably distinct from each other because (i) the claimed invention of claims 12, 14, 27-29 and 14 and claims 1-7 of the stated U.S. Patent are directed to a common subject matter.

Regarding claim 12, the limitations "at the at least one light source including at least one LED and being positioned so as to illuminate the liquid with substantially unguided radiation, wherein the one of the pool and the spa has a range of typical liquid levels of the liquid during use, and wherein the at least one light source is adapted to be

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disposed below the range of typical liquid levels; and an encapsulant to protect the at least one light source from moisture" recited in claims 1-5 of the stated U.S. Patent, and such inclusion of part for the same practice would have been obviously well recognized by a person skilled in the art.

Regarding claim 14, the limitations "the encapsulant is in contact with at least the at least one LED" recited in claims 4-5 of the stated U.S. Patent, and such inclusion of part for the same practice would have been obviously well recognized by a person skilled in the art.

Regarding claim 27, the limitations "An apparatus, comprising: at least one light source adapted to be supported by one of a pool and a spa to illuminate a liquid contained in the one of the pool and the spa, the at least one light source including at least one LED, further comprising at least one controller coupled to the at least one light source to control radiation output by the at least one light source" recited in claims 1 and 5 of the stated U.S. Patent, and such inclusion of part for the same practice would have been obviously well recognized by a person skilled in the art.

Regarding claim 28, the limitations " wherein the at least one controller is adapted to control a color of the radiation output by the at least one light source" recited in claims 1 and 5-6 of the stated U.S. Patent, and such inclusion of part for the same practice would have been obviously well recognized by a person skilled in the art.

Regarding claim 29, the limitations " wherein the at least one controller is adapted to control an intensity of the radiation output by the at least one light source"

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recited in the claim 1 of the stated U.S. Patent and such inclusion of part for the same practice would have been obviously well recognized by a person skilled in the art.

Regarding claim 32, the limitations "the at least one LED includes at least a first LED and a second LED, the first and second LEDs having different colors; and the at least one controller is adapted to control a first intensity of the first LED and a second intensity of the second LED" recited in the claims 1, 6-7 of the stated U.S. Patent and such inclusion of part for the same practice would have been obviously well recognized by a person skilled in the art.

3. Claim 15 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6, 774, 584 in view of Lowery et al (U.S. Patent No. 5,514, 627).

Regarding claim 41, the limitations "wherein the encapsulant " recited in claims 1-2 and 4 of the stated U.S. Patent.

However, U.S. Patent does not teach that, "wherein the encapsulant includes a conformal coating".

Lowery discloses that, the encapsulant includes a liquid coating at abstract.

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ the encapsulant includes a liquid coating such as that suggested by Lowery in the lighting system of US. Patent No. 6, 774, 584 in order to protect the LED from environment and prevent the moisture.

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4. Claim 30 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6, 774, 584 in view of Squibb (U.S. Patent No. 5,499,184).

Regarding claim 30, U.S. Patent No. 6, 774, 584 obviously discloses all of limitations except the at least one control signal includes at least one pulse width modulated signal.

Squibb discloses the PWM (34) for control the at least one control signal . See figure 1.

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ the PWM (34) for control the at least one control signal such as that suggested by Squibb in the lighting system of US. Patent No. 6, 774, 584 in order to modulate current through the light source at the PWM frequency.

5. Claims 17, 35-36, 38 and 61-62 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6, 774, 584 in view of Markur of (U.S. Patent No. 4,951,184).

Regarding claim 17, the limitations "at least one light source adapted to be supported by one of a pool and a spa to illuminate a liquid contained in the one of the pool and the spa, the at least one light source including at least one LED, and an interface coupled to the at least one light source, the interface being adapted to engage mechanically and electrically with a conventional light socket supported by the one of the pool and the spa" recited in claims 1-7 of the stated U.S. Patent.

However, U.S. Patent does not teach that, "wherein the conventional light socket includes a wedge type light socket"

Markurof discloses in figures 2-3, the light socket (38) for use as a wedge type light socket. See col.3, lines 47-51.

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ the light socket(38) for use as a wedge type light socket such as that suggested by Markurof in the lighting system of US. Patent No. 6, 774, 584 in order to use for a low voltage lamp.

Regarding claims 35-36 and 38, the limitations "a light fixture for one of a pool and a spa, comprising: at least one LED; and an interface coupled to the at least one LED, the interface being adapted to engage mechanically and electrically with a wedge type light socket supported by the one of the pool and the spa, wherein the at least one LED includes at least two differently colored LEDs and wherein the interface includes means for engaging mechanically and electrically the at least one LED with light socket and wherein the at least one LED includes at least one red LED, at least one green LED, and at least one blue LED. (note that, it has to use interface such as adapters or pins or screws or wires for install the LED under the water or the swimming pool), therefore the claims 1-7 recited in the stated U.S. Patent and such inclusion of part for the same practice would have been obviously well recognized by a person skilled in the art.

However, U.S. Patent does not teach that, "wherein the conventional light socket includes a wedge type light socket"

Markurof discloses in figures 2-3, the light socket (38) for use as a wedge type light socket. See col.3, lines 47-51.

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ the light socket(38) for use as a wedge type light socket such as that suggested by Markurof in the lighting system of U. S. Patent No. 6, 774, 584 in order to use for a low voltage lamp.

Regarding claims 39-40, the limitations "a light fixture for one of a pool and a spa, comprising: at least one LED; and an interface coupled to the at least one LED, the interface being adapted to engage mechanically and electrically with the light socket supported by the one of the pool and the spa, wherein the one of the pool and the spa has a range of typical liquid levels of the liquid during use, wherein the light socket is located below the range of typical liquid levels, and wherein the light fixture further includes an encapsulant to protect the at least one LED from moisture and wherein the encapsulant is in contact with at least the at least one LED" recited in claims 1-7 of the stated U.S. Patent.

However, U.S. Patent does not teach that, "wherein the conventional light socket includes a wedge type light socket"

Markurof discloses in figures 2-3, the light socket (38) for use as a wedge type light socket. See col.3, lines 47-51.

It would have been an obvious to one of ordinary skill in the art at the time the



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invention was made to employ the light socket(38) for use as a wedge type light socket such as that suggested by Markurof in the lighting system of U. S. Patent No. 6, 774, 584 in order to use for a low voltage lamp.

Regarding claim 61, the limitations “ the method of illuminating a liquid in one of a pool and a spa, comprising acts of: a) engaging at least one light fixture mechanically and electrically with light socket supported by the one of the pool and spa, the at least one light fixture including at least one LED; and b) providing at least power to the at least one light fixture via the light socket to illuminate the liquid” (theses limitations are identical in an apparatus of claims 1-7 from U. S. Patent No. 6, 774, 584, therefore, the structure of claims will capable to apply a method claims as well.

However, U.S. Patent does not teach that, “wherein the light socket is the wedge type light socket”

Markurof discloses in figures 2-3, the light socket (38) for use as a wedge type light socket. See col.3, lines 47-51.

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ the light socket(38) for use as a wedge type light socket such as that suggested by Markurof in the lighting system of U. S. Patent No. 6, 774, 584 in order to use for a low voltage lamp.

Regarding claim 62, the limitations “A method of illuminating a liquid in one of a pool and a spa, comprising acts of a) engaging at least one light fixture mechanically and electrically with a light socket supported by the one of the pool and spa, the at least one light fixture including at least one LED; and b) providing at least power to the at

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least one light fixture via the type light socket to illuminate the liquid, wherein the one of the pool and the spa has a range of typical liquid levels of the liquid during use, wherein the type light socket is located below the range of typical liquid levels, and wherein the act a) comprises an act of engaging the at least one light fixture, below the range of typical liquid levels, with the wedge type light socket "" (theses limitations are identical in an apparatus of claims 1-7 from U. S. Patent No. 6, 774, 584, therefore, the structure of claims will capable to apply a method claims as well.

However, U.S. Patent does not teach that, "wherein the light socket is the wedge type light socket"

Markurof discloses in figures 2-3, the light socket (38) for use as a wedge type light socket. See col.3, lines 47-51.

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ the light socket(38) for use as a wedge type light socket such as that suggested by Markurof in the lighting system of U. S. Patent No. 6, 774, 584 in order to use for a low voltage lamp.

6. Claim 41 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6, 774, 584 in view of Lowery et al (U.S. Patent No. 5,514, 627).

Regarding claim 41, the limitations "wherein the encapsulant " recited in claims 1-2 and 4 of the stated U.S. Patent.

However, U.S. Patent does not teach that, "wherein the encapsulant includes a conformal coating".

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Lowery discloses that, the encapsulant includes a liquid coating at abstract.

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ the encapsulant includes a liquid coating such as that suggested by Lowery in the lighting system of US. Patent No. 6, 774, 584 in order to protect the LED from environment and prevent the moisture.

7. Claims 18 and 19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6, 774, 584 in view of Nau (U.S. Patent No. 5, 681, 105).

Regarding claim 18, the limitations " at least one light source adapted to be supported by one of a pool and a spa to illuminate a liquid contained in the one of the pool and the spa, the at least one light source including at least one LED, and an interface coupled to the at least one light source, the interface (means) being adapted to engage mechanically and electrically with a conventional light socket supported by the one of the pool and the spa, and the interface is adapted to engage mechanically and electrically with type light socket" recited in claims 1-7 of the stated U.S. Patent.

However, U.S. Patent does not disclose wherein the conventional light socket includes a screw type light socket.

Naur discloses that, a ground support lamp comprises a socket having a screw( see abstract) and also discloses that, a lighting fixture is suitable for surface lighting and installation in around swimming pool. See col.6, lines 65-67 to col7, lines 1-3.

Therefore, it would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ a screw type light socket as that suggested by

Nau in the lamp system of Patent No. 6,774, 584 in order to gain the commonly understood benefits of such adaptation, such as simplified operation and support the wall or any environment.

Regarding claim 19, the limitations “ at least one light source adapted to be supported by one of a pool and a spa to illuminate a liquid contained in the one of the pool and the spa, the at least one light source including at least one LED, and an interface coupled to the at least one light source, the interface (means) being adapted to engage mechanically and electrically with a conventional light socket supported by the one of the pool and the spa, and the interface is adapted to engage mechanically and electrically with type light socket” recited in claims 1-5 of the stated U.S. Patent.

However, U.S. Patent does not disclose wherein the conventional light socket includes a multiple pins type light socket.

Naur discloses that, a ground support lamp comprises a socket having a screw ( see abstract) and in figure 6, a pair of hook pins (98) (col.5, 35-47) and also discloses that, a lighting fixture is suitable for surface lighting and installation in around swimming pool. See col.6, lines 65-67 to col7, lines 1-3.

Therefore, it would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ a multiple type light socket as that suggested by Nau in the lamp system of Patent No. 6,774, 584 in order to gain the commonly understood benefits of such adaptation, such as simplified operation and increased reliability and support the wall or any environment.

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8. Claims 42-55 and 74 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6, 774, 584 in view of N Chirelstein (U.S. Patent No. 2,257, 786).

Regarding claim 42, claims 1-7 of U.S. Patent No. 6, 774, 584 obviously discloses all of limitations except the interface includes two pins engage at least electrically with the wedge type light socket.

N Chirelstein discloses in figures 1-3, two pins (23, 24) engage at least electrically with the wedge type light socket. Page 1, lines 29-52.

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ the two pins (23, 24) engage at least electrically with the wedge type light socket such as that suggested by N Chirelstein in the lighting system of US. Patent No. 6,774, 584 in order to support the wall or any environment.

Regarding claims 43-46, claims 1-7 of U.S. Patent No. 6, 774, 584 and N Chirelsterin obviously discloses all of limitations except wherein each pin of the two pins has a diameter of approximately 0.09 inches and has a length of approximately 0.46 inches and the two pins are separated from each other by a distance of approximately 0.25 inches.

However, each pin of the two pins has a diameter of approximately 0.09 inches and has a length of approximately 0.46 inches and the two pins are separated from each other by a distance of approximately 0.25 inches can be selected at a desired a diameter, a length, a distance based on a particular application or environment of use and such a selection would have been involved with only routine skill in the art.

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Therefore, to employ the each pin of the two pins has a diameter of approximately 0.09 inches and has a length of approximately 0.46 inches and the two pins are separated from each other by a distance of approximately 0.25 inches to be suitable to a desired application or environment of use would have been deemed obvious to a person skilled in the art.

Regarding claim 74, the limitations "wherein the at least one LED includes at least two differently colored LEDs" recited in claims 5-6 of the stated U.S. Patent, and such inclusion of part for the same practice would have been obviously well recognized by a person skilled in the art.

Regarding claims 47, 51-55, claims 1-7 of U.S. Patent No. 6, 774, 584 and N Chirelsterin obviously discloses all of limitations except wherein at least one pin of the two pins includes at least one perturbation to facilitate mechanical engagement of the interface and the light socket and wherein the at least one perturbation includes at least one protruding ring formed at least partially around a circumference of the at least one pin; wherein the at least one perturbation includes at least one continuous protruding ring formed completely around the circumference of the at least one pin; wherein the at least one perturbation is located approximately 0.17 inches from an end of the at least one pin; wherein a first pin of the two pins includes a first perturbation and a second pin of the two pins includes a second perturbation to facilitate mechanical engagement of the interface and the light socket.

Note that, these limitations are mechanical and electrical components or devices for engage to the light socket are known as support interfaces, that are commonly used

in the art. It would have been obvious to one of ordinary skill in the art to utilize these limitations such as mechanical and electrical components or devices for engage to the light socket, since it is known and well suited for the intended use.

Regarding claims 48-50, U.S. Patent No. 6, 774, 584 and N Chirelsterin obviously discloses all of limitations except wherein the at least one perturbation includes at least one indented groove formed at least partially around a circumference of the at least one pin and wherein the at least one perturbation includes at least one continuous indented groove formed completely around the circumference of the at least one pin.

Note that, these limitations are mechanical and electrical components or devices for engage to the light socket are known as support interfaces, that are commonly used in the art. It would have been obvious to one of ordinary skill in the art to utilize these limitations such as mechanical and electrical components or devices for engage to the light socket, since it is known and well suited for the intended use.

9. Claims 20, 23-25 and 33 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 11-7 and 12, 24-27 of U.S. Patent No. 6,967, 448. Although the conflicting claims are not identical, they are not patentably distinct from each other because (i) the claimed invention of claims 20-23-25 and 33, claims 1-7 and 12, 24-27 of the stated U.S. Patent are directed to a common subject matter.

Regarding claim 20, the limitations "at least one light source adapted to be supported by one of a pool and a spa to illuminate a liquid contained in the one of the

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pool and the spa, the at least one light source including at least one LED, wherein the at least one light source is adapted to generate radiation of different colors without requiring the use of a color filter" recited in claims 1-5 of the stated U.S. Patent No. 6,967, 488 and such inclusion of part for the same practice would have been obviously well recognized by a person skilled in the art.

Regarding claim 23, the limitations " an apparatus, comprising: at least one light source adapted to be supported by one of a pool and a spa to illuminate a liquid contained in the one of the pool and the spa, the at least one light source including at least one LED, wherein the at least one LED includes at least two independently controllable LEDs" recited in claims 24-27 of the stated U.S. Patent No. 6,774, 584, and such inclusion of part for the same practice would have been obviously well recognized by a person skilled in the art.

Regarding claim 24, the limitations "An apparatus, comprising: at least one light source adapted to be supported by one of a pool and a spa to illuminate a liquid contained in the one of the pool and the spa, the at least one light source including at least one LED, wherein the at least one light source includes at least two independently controllable light sources" recited in claims 24-27 of the stated U.S. Patent. No. 6,967,448 and such inclusion of part for the same practice would have been obviously well recognized by a person skilled in the art.

Regarding claim 25, the limitations" wherein the at least two independently controllable light sources include at least two independently addressable light sources" recited in claims 24-27 of the stated U.S. Patent No. 6,967,448 (note that, the control at



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least a color of variable color require to have a different address( IP), if not , the controller would not capable to variable color.

Regarding claim 33, the limitations "An apparatus, comprising: at least one light source adapted to be supported by one of a pool and a spa to illuminate a liquid contained in the one of the pool and the spa, the at least one light source including at least one LED; and at least one controller coupled to the at least one light source to control radiation output by the at least one light source, wherein the at least one light source includes at least a first light source and a second light source each adapted to be supported by the one of the pool and the spa and to illuminate the liquid contained in the one of the pool and the spa, wherein the at least one controller includes at least a first controller coupled to the first light source and a second controller coupled to the second light source, and wherein: each of the first controller and the second controller is independently addressable; and the first controller and the second controller are coupled together to form a networked lighting system." recited in claims 1-7 of the stated U.S. Patent. No. 6,967,448 and such inclusion of part for the same practice would have been obviously well recognized by a person skilled in the art.

10. Claim 34 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,187,141. Although the conflicting claims are not identical, they are not patentably distinct from each other because (i) the claimed invention of claim 34 and claims 1 of the stated U.S. Patent are directed to a common subject matter, (ii) the limitation "one of pool an a spa" recited in the claimed invention of claim 34 is inclusive of " a body to contain liquid (water)" recited

in claim 1 of the stated U.S. Patent, and such inclusion of part for the same practice would have been obviously well recognized by a person skilled in the art.

***Allowable Subject Matter***

11. Claims 31 and 56-60 and 75 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Prior art does not teach that, the at least one controller outputs at least one control signal to the at least one light source to control the radiation output by the at least one light source; and the at least one control signal includes at least one variable analog signal recited in dependent claim 31.

Prior art does not teach that, wherein each pin of the two pins has a diameter of approximately 0.09 inches; each pin of the two pins has a length of approximately 0.46 inches; the two pins are separated from each other by a distance of approximately 0.25 inches; a first pin of the two pins includes a first perturbation and a second pin of the two pins includes a second perturbation to facilitate mechanical engagement of the interface and the wedge type light socket; the first perturbation is located approximately 0.17 inches from an end of the first pin; and the second perturbation is located approximately 0.17 inches from an end of the second pin recited in dependent claim 56.

The remaining dependent claims 57-60 and 75 are depended to claim 56, therefore, they are allowable for at least above reason.

***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 AM-2: 45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Owens Douglas W can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Examiner

Minh A

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8/15/07

*Douglas L. Owens 9/3/07*

DOUGLAS W. OWENS  
SUPERVISORY PATENT EXAMINER